Saskatoon Light & Power

2015 Annual Report

City of
Saskatoon
Transportation & Utilities Department

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1.0 EXECUTIVE SUMMARY

Saskatoon Light & Power is proud to serve its customers with an electrical distribution system that exceeds national averages for reliability. Customer feedback obtained through the Civic Services Survey indicated that satisfaction levels regarding electrical distribution reliability remained high over the past five years and is one of the top three key strengths of the City of Saskatoon (City).

The lost time injury frequency was slightly higher than the Canadian Electricity Association's Urban Average in 2015, but the severity rate was close to the average. The frequency and severity rates were significantly better for Saskatoon Light & Power as compared against the corporate averages.

The utility continues to provide a very high financial return to the City offsetting the reliance on property taxes. Increased attention will need to be spent in future years though on capital spending to ensure the system is maintained at an acceptable level to ensure continued success. The combined balance of the utility's two capital reserves is positive, but relatively low in comparison to previous years.

Saskatoon Light & Power has focused on the implementation of smart meter technology to provide better customer service and to reduce costs associated with meter reading. Work on the Automated Metering Infrastructure project in 2015 will allow the new system to be operational in mid-2016.

Saskatoon Light & Power has demonstrated a commitment to environmental stewardship by developing and operating the Landfill Gas Power Generating Station and making plans for the installation of a Solar Photovoltaic (PV) Demonstration project in partnership with SES Solar Cooperative Ltd. and Saskatchewan Polytechnic. Preliminary plans for additional projects are also being considered. Energy efficient LED lighting has also become the standard for all new roadway and park lighting projects, further reducing the energy needs of the growing city.

Challenges exist for the utility in the future, but strategic plans are being made to address those concerns.

2.0 OVERVIEW – SASKATOON LIGHT & POWER

Saskatoon Light & Power is a municipally owned electrical utility that provides a number of services to the citizens of Saskatoon, including:

- Generation of electricity from environmentally responsible sources;
- Purchase of bulk electricity from SaskPower;
- Distribution of electricity to customers;
- Provision of fibre-optic communication connectivity for other divisions; and
- Provision of street lighting services.

2.1 Mission Statement

Saskatoon Light & Power's mandate is to provide safe, reliable, and cost effective electricity in an environmentally responsible way. We strive to minimize the number and duration of customer outages with a focus on system maintenance, staff training and safety.

2.2 Our Values

Trust
Our customers trust that we will provide them with reliable service and respond as quickly as possible to any service interruption. We earn that trust by carefully planning our work and undertaking renewal projects when needed.

Integrity
We are accountable for our actions. We publish reliability statistics and compare against other Canadian utilities when available. We respond to customer inquiries quickly and work to resolve issues.

Respect
We respect our customer's privacy by following established legislation. We work together as a multi-disciplinary team to provide a wide array of services. We rely on the technical expertise of our staff to operate a complex utility. We put safety first in everything we do, keeping in mind that our staff have families and friends that rely on them.

Honesty
We admit our mistakes and take necessary steps to prevent similar issues. We are open and honest with our customers, City Council and the media. We listen to our customers.

Courage
Although we are a relatively small electrical utility, we take on big, complex and innovative projects. We invest our time and resources on smart projects and strive to continuously improve our services.

2.3 Our Leadership Commitments

Reliable and Responsive Service
Through the use of sound long-range planning principles, services are designed to meet future needs. Through the application of asset management principles, existing assets are maintained to meet reliability requirements. Through emergency preparedness planning, we will be ready to respond to issues when they arise.

Strong Management and Fiscal Responsibility
Saskatoon Light & Power's strategic plan aligns with the City of Saskatoon's (City) corporate strategies. Key performance indicators are measured and tracked, and meaningful, measurable and achievable goals are set.

Effective Communication, Openness and Accountability
We prepare annual reports and make them available to our customers, City Council and our staff. We communicate with staff regularly to build and strengthen relationships and provide key information in a timely manner.

Innovation and Creativity
We work on major initiatives using a collaborative approach, often using joint committees to resolve staffing-related issues. We focus on productivity while maintaining high quality standards and never compromising safety.

2.4 Our Strategic Goals

The work of Saskatoon Light & Power aligns with the following corporate strategic goals and strategies for the long term (10 years):

Continuous Improvement

- Provide a coordinated approach to customer service with quick and accurate responses.
- Make health and safety a top priority in all that we do.
- Provide ongoing skills training and professional development opportunities for staff.
- Increase productivity by being more efficient in the way we do business.
- Leverage technology and emerging trends to reach our goals, serve citizens and connect meaningfully with our stakeholders.

Asset and Financial Sustainability

- Increase revenue sources and reduce reliance on residential property taxes.
- Reduce the gap in the funding required to rehabilitate and maintain our infrastructure.
- Adopt and implement a corporate-wide asset management and rehabilitation philosophy.

Environmental Leadership

- Create new sources of green energy where feasible.
- Reduce greenhouse gas (GHG) emissions tied to City operations.

Economic Diversity and Prosperity

- Plan and invest in infrastructure needed to attract and support new businesses and skilled workers to the city.

3.0 OUR CUSTOMERS

3.1 Number of Customers

The number of customers served by Saskatoon Light & Power has grown over the past five years (3.0%), primarily due to residential growth in the Evergreen neighbourhood, which falls partially within the Saskatoon Light & Power franchise boundary. Infill development has also occurred within established neighbourhoods.

Number of Customers

	2011	2012	2013	2014	2015
Residential	52,564	53,201	53,574	53,970	54,163
Commercial	6,346	6,371	6,360	6,375	6,391
Total	58,910	59,572	59,934	60,345	60,554

The average number of customers served in 2015 was 60,554, consisting of 54,163 residential customers (89.4%) and 6,391 commercial customers (10.6%).

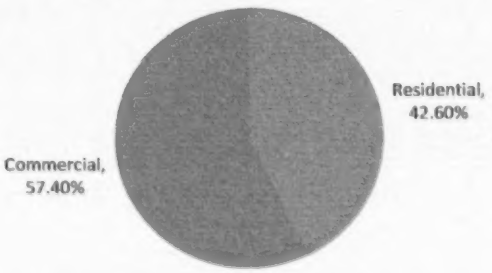
Since the utility's franchise boundaries are fixed, the majority of Saskatoon Light & Power's anticipated growth in the future will come from increased densification of the downtown core and existing neighbourhoods.

3.2 Revenue by Customer Type

Although the number of commercial customers is much lower than the number of residential customers, consumption by commercial customers is much higher; therefore, accounts for a higher percentage of the utility's revenues.

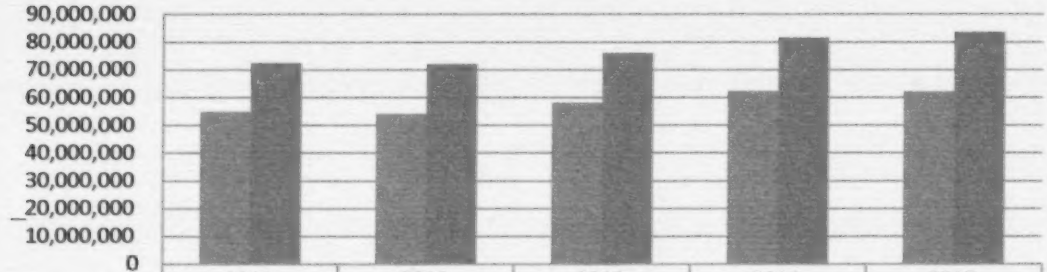
The total amount of revenue collected from residential customers in 2015 was $61,990,689 (42.6%). Revenue collected from commercial customers totalled $83,450,085 (57.4%).

Revenue by Customer Type



Revenue has continued to grow over the past five years primarily due to rate increases implemented by SaskPower and matched by Saskatoon Light & Power.

Revenue by Customer Type

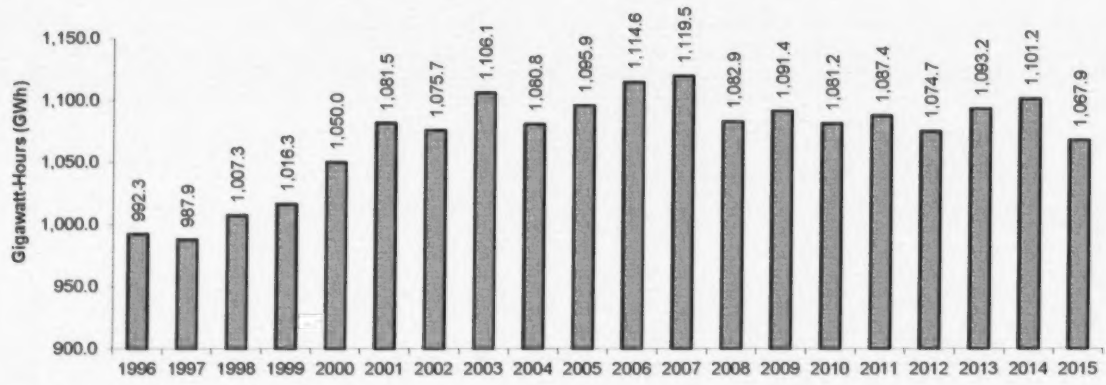


	2011	2012	2013	2014	2015
Residential	54,777,358	53,929,374	57,940,195	62,105,101	61,990,689
Commercial	72,285,149	71,962,888	76,063,428	81,481,389	83,450,085

3.3 Energy Consumption and Demand

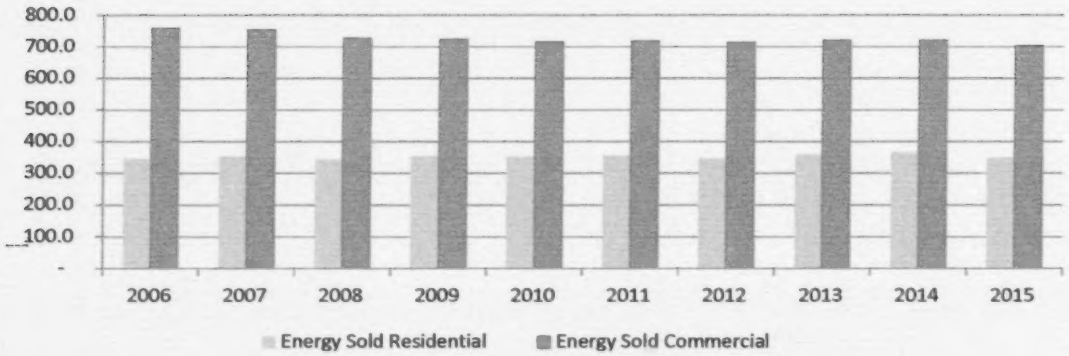
The following chart shows the 20 year history for total energy sales to all types of customers. Energy consumption has not increased over the past decade even though the number of customers have increased. Conservation may account for this slight decrease.

Total Electrical Energy Sales



The next chart shows that although the number of residential customers has increased over the past 10 years, energy consumption has remained relatively constant. During the same period of time, the number of commercial customers remained relatively constant and energy sales dropped by 9%.

Energy Sales by Customer Type



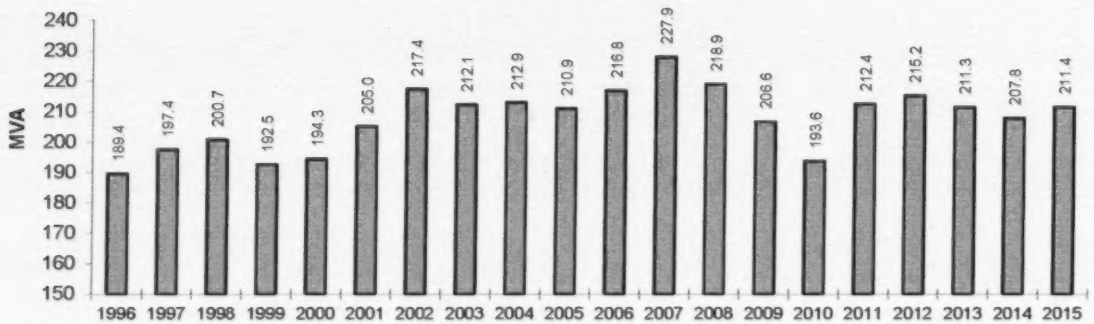
The next chart shows the peak system demand for the past 20 years. SaskPower charges Saskatoon Light & Power for bulk power based on three criteria:

- Electrical Energy (GWh)
- Demand Charge (MVA)
- Monthly Service Charge

The demand charge is intended to relate to costs associated with transmitting the electricity from the generating stations to the service area. If Saskatoon Light & Power's customers use power at the same point in time, the transmission system needs to be sized accordingly to handle that quantity of electricity and SaskPower, therefore, charges more. The peak system demand indicates the highest level observed during the year. This typically occurs on one of the hotest days in the summer.

This chart shows that there has been a 17.7% fluctuation in peak system demand between the high experienced in 2007 and one of the recent lows experienced three years later in 2010. This fluctuation can lead to annual bulk power cost variances from budget.

Peak System Demand



3.4 System Reliability

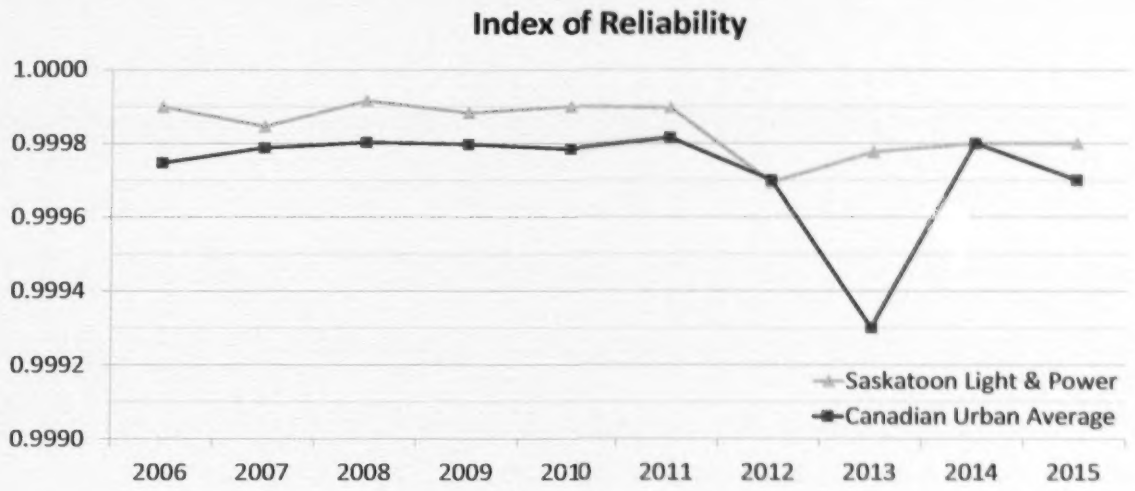
Saskatoon Light & Power is a member of the Canadian Electricity Association (CEA). The CEA collects reliability statistics on behalf of its member companies and reports the averages for comparative purposes.

The CEA reports on urban utility statistics separate from rural utilities in order to provide a better basis for comparison. Urban utilities generally have better reliability.

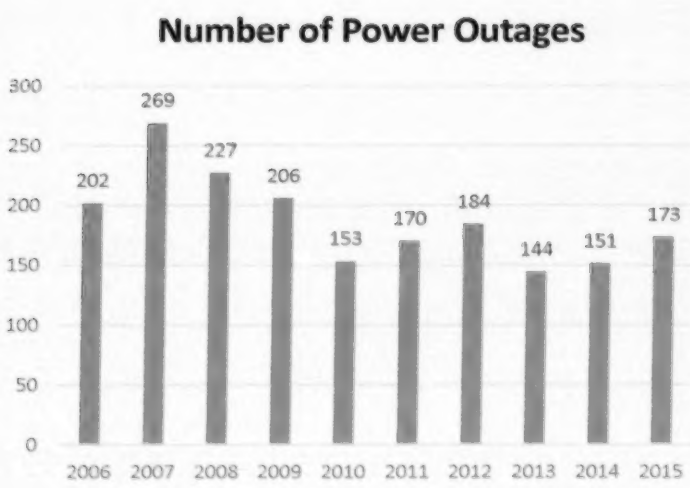
Saskatoon Light & Power has set a goal of meeting or exceeding the system reliability performance based on the Canadian Urban Average.

Index of Reliability

The following chart shows the Index of Reliability (IOR) for Saskatoon Light & Power in comparison to the Canadian Urban Average. This index measures the availability of service to customers on an annual basis. For example, an IOR of 0.9998 would mean that electrical service is provided 99.98% of the time over a one year period.



This chart shows that Saskatoon Light & Power has been consistently meeting its goals and performing as well as, or better than, the Canadian Urban Average. This is a key metric for utilities since both the number of outages as well as the duration have an effect on the IOR.

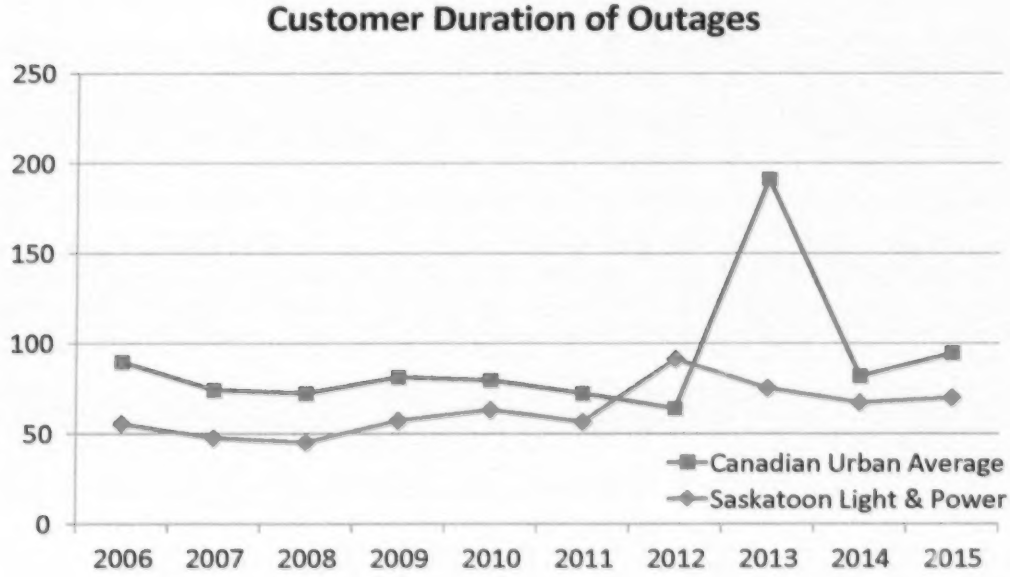


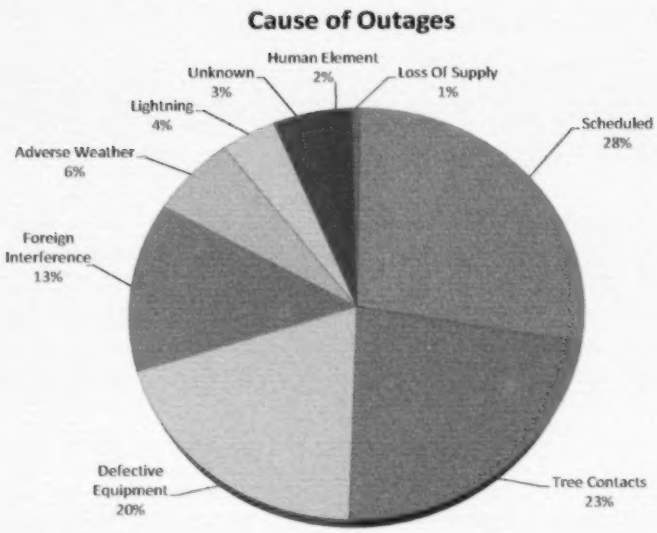
Number of Power Outages

Saskatoon Light & Power also tracks the number of outages that are experienced annually and compares against its own performance from previous years. The following chart shows that the number of outages has remained relatively consistent over the past six years (2010 to 2015) and was slightly higher in the previous four years.

Duration of Power Outages

The following chart shows the average time for restoring power to customers who experienced an outage during the year. The 10-year average for Saskatoon Light & Power was 63 minutes. The Canadian Urban Average was 90 minutes. Saskatoon Light & Power performed better than the Canadian Urban Average in every year except 2012.





Causes of Outages in 2015

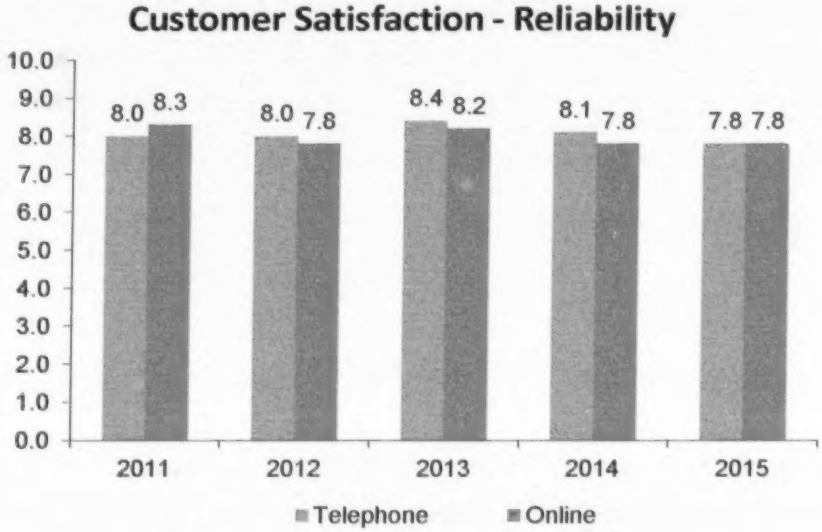
The four primary causes of power outages in 2015 were: (1) scheduled outages for maintenance work; (2) trees contacting overhead power lines; (3) defective equipment; and (4) interference by a third party (such as damage from a vehicle collision, bird contacts with overhead power lines, contractor dig-ins with underground cables, etc.).

3.5 Customer Satisfaction

"Saskatoon Light & Power is committed to timely, friendly and professional service. Our customers are treated in a fair and equitable manner."

The City conducts an annual Civic Services Survey. One of the questions asks customers to rate the reliability of their electricity provider. Satisfaction levels have remained high over the past 5 years and is rated in the top three key strengths of civic services.

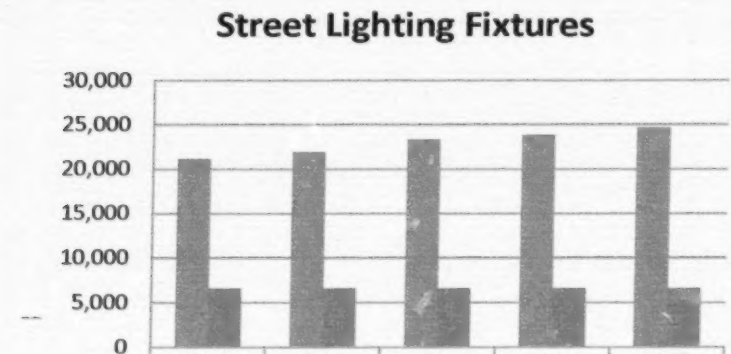
In 2014, electrical service reliability was ranked as the sixth most important service provided by the City.



Note - Results exclued SaskPower customers starting in 2013

3.6 Street Lighting

Saskatoon Light & Power maintains 79% of the 31,139 lighting fixtures in Saskatoon and SaskPower maintains the remaining 21%.

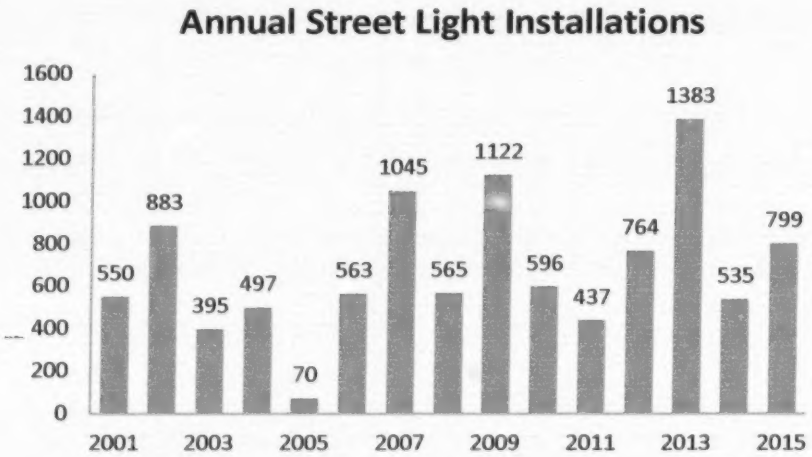


	2011	2012	2013	2014	2015
SL&P	21,121	21,885	23,268	23,803	24,602
SaskPower	6,575	6,537	6,537	6,537	6,537

Responsibility for street lighting does not follow electrical franchise boundaries. In 2004, City Council directed Saskatoon Light & Power to take responsibility for all new street lighting projects in the city. Prior to 2004, SaskPower had been installing the street lights in new growth areas outside of our franchise area.

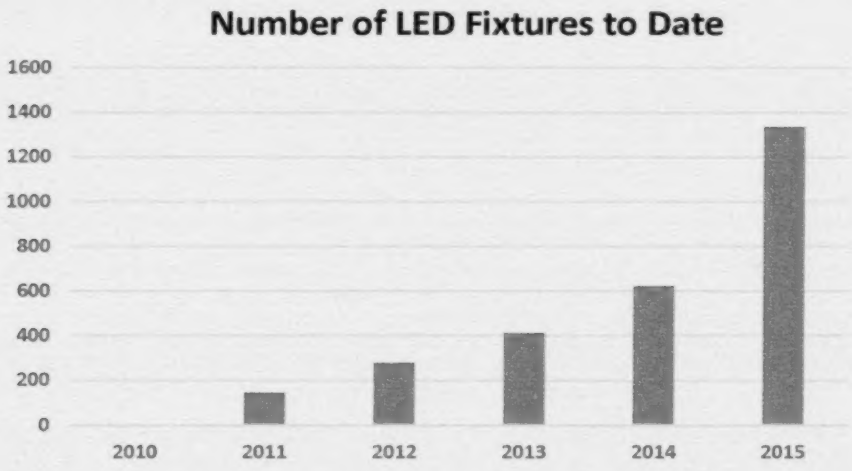
The increase in land development activity over the past decade has been significant and has increased the number of lights installed annually. Typically, 500 to 600 lights are installed each year in residential and industrial areas and additional lights are installed when major roadway projects are undertaken.

The 10-year average for installations is 781 lights per year.



Saskatoon Light & Power has also been leading the way with the implementation of Light Emitting Diode (LED) lighting. LED lights use significantly less energy to produce the same amount of light. A large scale trial was conducted in the Evergreen neighbourhood and proved that the lights were performing in accordance with expectations. City Council approved a recommendation in 2014 to make LED lights the standard for all new installations. By the end of 2015,

1,334 LED lights had been installed comprising 5.4% of all lights owned by Saskatoon Light & Power.



3.7 Seasonal Decorations

Saskatoon Light & Power provides 465 seasonal decorations and decorative lighting on 12 main thoroughfares and bridges during the Christmas season. Banners are also installed on street light poles in various business districts throughout the year.

In January 2015, City Council provided direction to Saskatoon Light & Power to extend the duration that seasonal decorations remained on along 3rd Avenue, the Broadway Bridge, and Broadway Avenue to 8th Street. These "winter-themed" lights remained on until March 20 and helped the community celebrate being a winter city.

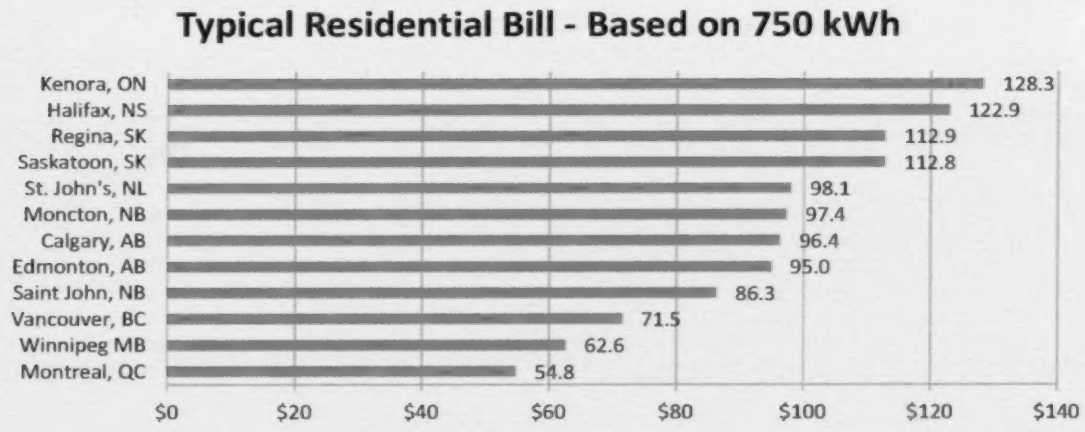
4.0 OUR FINANCES

4.1 Competitive Rates

Saskatoon Light & Power rates for electricity are regulated by City Council through bylaw and have generally been set the same as SaskPower rates for similar customer classes.

The province has established the Saskatchewan Rate Review Panel which reviews applications made by the crown utilities and receives feedback from customers prior to making their recommendation to the province.

The following chart provides a comparison of electricity rates in provinces across the country. Rates in Saskatchewan are relatively high, due in large part to a lack of hydropower resources in the province. Provinces with an abundance of hydropower (including British Columbia, Manitoba and Quebec) tend to have lower energy costs.

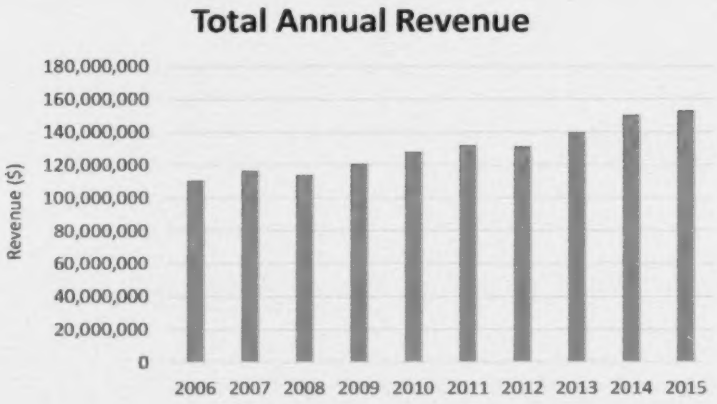


Source - Manitoba Hydro May 2015 Electricity Bill Survey. Rates do not include municipal surcharges.

4.2 Summary of Revenues

Over the past 10 years, total annual revenues have increased from $110.6 million in 2006 to $152.9 million in 2015. This is an overall increase of 38.2%.

During the same time period, overall consumption by Saskatoon Light & Power's customers decreased by 4.2%. The increase in total annual revenues, therefore, can be primarily attributed to rate increases to customers.

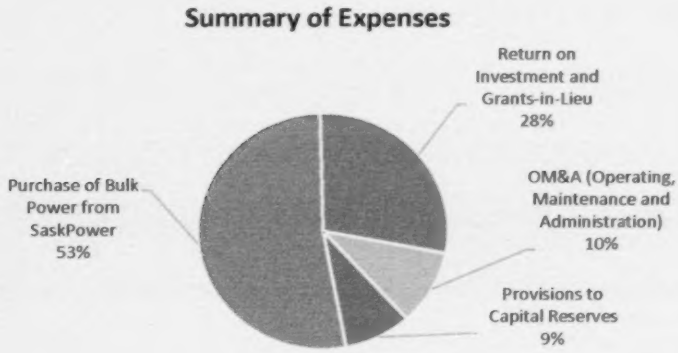


4.3 Summary of Expenses

Saskatoon Light & Power's expenses can be summarized into four main categories.

The largest cost to the utility was the cost of purchasing bulk power from SaskPower. In 2015, bulk power totalled $80.46 million, which represented 53% of total expenses.

The second largest category was the combination of the Return on Investment (ROI) ($23.06 million) and Grants-in-Lieu (GIL) of Taxes ($20.48 million) provided to the City. Together, these two items provided a net benefit of $43.54 million and represented 28.48% of the utility's expenses.


Summary of Expenses
Return on Investment and Grants-in-Lieu 28%
OM&A (Operating, Maintenance and Administration) 10%
Provisions to Capital Reserves 9%
Purchase of Bulk Power from SaskPower 53%

The third largest cost was the Operating, Maintenance and Administration expenses (OM&A). These items totalled $15.6 million and represented 10% of the utility's total expenses. Included in this category is a cross-charge to Corporate Revenue to provide meter reading and billing services.

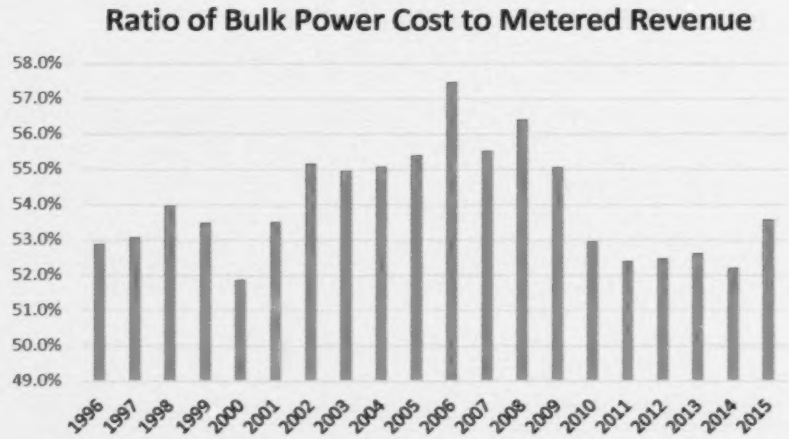
The final category was the provision to capital reserves. In 2015, $13.3 million were allocated to the utility's reserves to pay for both renewal and expansion of the distribution system (9% of expenses).

4.4 Ratio of Bulk Power Cost to Metered Revenue

Saskatoon Light & Power monitors the ratio of bulk power costs as compared against total metered revenue. Both of these rates are effectively set by SaskPower since City Council in the past has given direction to Saskatoon Light & Power to match SaskPower's retail rates.

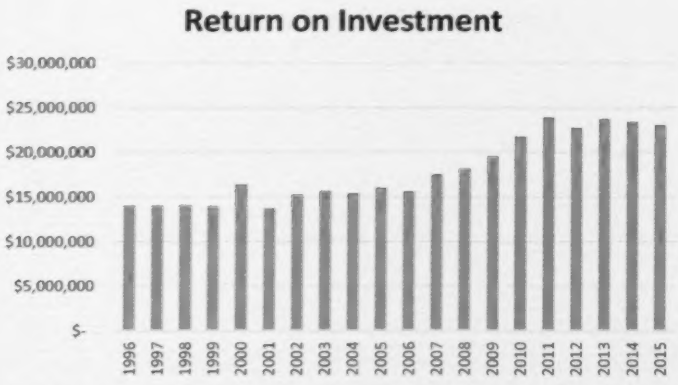
When the increase to the bulk power cost exceeds the increase in retail rates, it is difficult for the utility to deal with inflationary cost increases for both operating and capital expenses.

An increase in this ratio of 1% would have a $1.5 million negative impact on Saskatoon Light & Power's finances.



4.5 Financial Return to the City of Saskatoon

Saskatoon Light & Power provides a significant financial benefit to the City by providing both a ROI as well as GIL. These funds are made available from the utility for the City to use for general operations. This is an important source of revenue for the City, which reduces the pressure on property taxes.



Significant increases were made to the ROI between 2006 and 2011. The ROI increased from $15,581,531 to $23,907,400 during that time (an increase of 53%).

The utility has been able to sustain the ROI between 2011 and 2015 with minor annual fluctuations. In 2015, the ROI was $23,059,700. ROI now represents 15.1% of the utility's total gross revenue, which is very high within the industry.

Saskatoon Light & Power also provides GIL. This amount is formula driven each year based on total revenues. As electricity rates increase, or sales volumes increase or decrease, GIL is adjusted accordingly.

Over the past 10 years, GIL increased from $14,935,279 in 2006 to $20,483,200 in 2015 (an increase of 37%).

Combining ROI and GIL, the total net financial benefit from Saskatoon Light & Power to the City in 2015 was $43,542,900.

Without these stable sources of income, the City would need to find revenue from other sources to meet its requirements. If property taxes were increased to cover these amounts, taxes would need to increase by 25%.

4.6 Year-End Operating Budget Variance

Saskatoon Light & Power had a negative variance at the end of 2015 that was primarily the result of lower than budgeted electricity sales. Metered revenue was below budget by $2,159,600. This was partially offset by bulk power costs that were below budget by $1,065,200.

Administration and general expenses were below budget by $537,900. Distribution-related expenses were above budget by $713,700, which reflected increased attention on the maintenance of the distribution system in 2015.

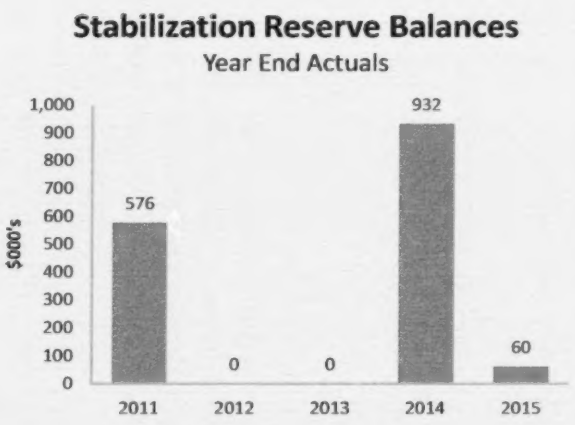
2015 Operating Budget Variance ($000)

	Budget	Actual	Variance	%
Revenue				
Metered revenue	$139,527.1	$137,367.5	($2,159.6)	-1.55%
Municipal surcharge	13,842.7	13,651.8	(190.9)	-1.38%
Unbilled revenue	0.0	272.2	272.2	
Other revenue	1,320.9	1,649.0	328.1	24.84%
Total revenue	$154,690.7	$152,940.6	($1,750.1)	-1.13%
Expenses				
Bulk Power	$81,525.4	$80,460.2	($1,065.2)	-1.31%
Grants-in-lieu of taxes	20,769.6	20,483.2	(286.4)	-1.38%
Distribution	7,463.5	8,177.2	713.7	9.56%
Street lighting maintenance	1,283.5	1,581.1	297.6	23.19%
Admin & general	7,255.2	6,717.3	(537.9)	-7.41%
Provision to EDRR	7,055.0	7,055.0	0.0	0.00%
Provision to EDER	6,278.8	6,278.8	(0.0)	0.00%
Total expense	$131,631.0	$130,752.9	($878.1)	-0.67%
Revenue less expense	$23,059.7	$22,187.7	($872.0)	-3.78%
(To)/From Stabilization reserve	$0.0	$872.0		
Return on Investment	$23,059.7	$23,059.7	$0.0	0.00%

Saskatoon Light & Power was able to bring their final year-end variance to $0 by utilizing its operating stabilization reserve ($872,000).

4.7 Operating Stabilization Reserve

A stabilization reserve has been created by Saskatoon Light & Power to address any positive or negative variances that may occur each year. The source of funds for this reserve comes from previous year surpluses. In years when a negative variance occurs, funds are withdrawn from this reserve. Use of this reserve allows the utility to meet its ROI levels without the variances having an impact on the City's general accounts.



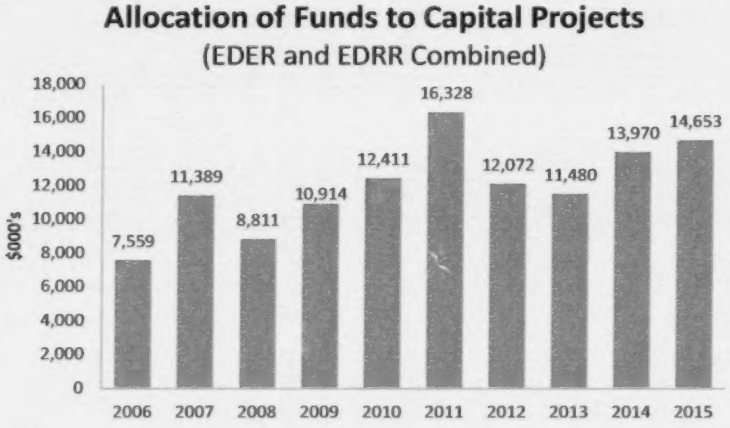
At the end of 2015, there was $60,000 remaining in the reserve.

4.8 Capital Spending and Capital Reserves

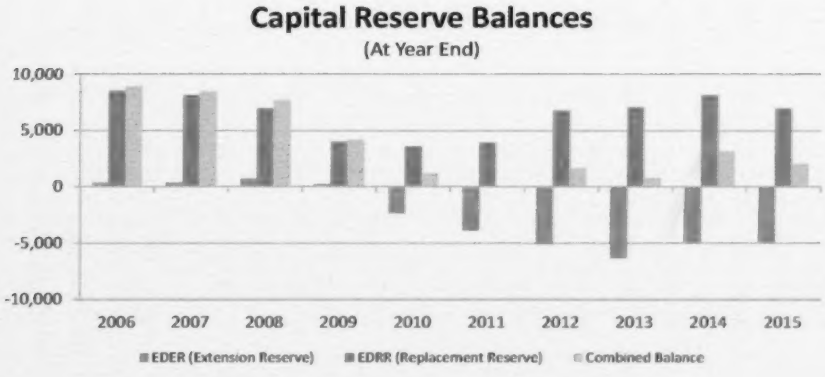
Saskatoon Light & Power funds the extension and replacement of its infrastructure through the use of capital reserves: the Electrical Distribution Extension Reserve (EDER); and the Electrical Distribution Replacement Reserve (EDRR). These reserves receive annual provisions from the utility's operating budget. A review of the sufficiency of these reserves is completed annually to ensure that they will meet the capital expenditures planned in the next five years.

The adjacent chart shows the amount of funds provided from EDER and EDRR combined to various capital projects over the past 10 years.

It is important to note that in 2011, $5.2 million was allocated to the Landfill Gas Project as an internal loan. Revenues being generated from that project are currently repaying the loan.



There has been an increasing level of funding allocated to capital projects over the past 10 years.



Also shown are the capital reserve balances for EDER and EDRR as well as the combined value of the two reserves. By policy, the utility may run a deficit in one reserve as long as the combined value of the two reserves remains positive.

In 2006, the combined value of the reserves was $8,922,000. In 2015, the combined value decreased to $2,050,000. Saskatoon Light & Power has intentionally left a positive balance to ensure there is sufficient funding if a failure occurs on the system that requires immediate attention. During the same time period, the utility increased its ROI contribution to the City from $15,581,531 to $23,059,700.

Saskatoon Light & Power intends to bring forward a report to City Council in 2016 outlining the general condition of the utility's infrastructure and the increased need for capital spending. The utility intends to specifically target capital spending on infrastructure renewal projects.

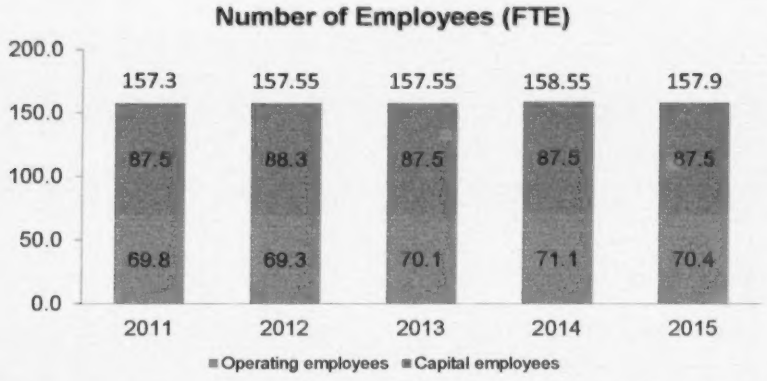
Over the past several years, the economic prosperity within the city has allowed a number of residential and commercial developments located within Saskatoon Light & Power's franchise area to occur. These developments have required upgraded electrical services. Customers pay a portion of the upgrade costs and the utility pays a portion. To fund the utility's portion using EDER, a positive and offsetting balance was needed to be maintained within EDRR. As the utility is able to increase funds to EDER, it will be able to once again utilize the positive balance in EDRR to carryout needed renewal projects.

5.0 OUR PEOPLE

5.1 Number of Employees

Saskatoon Light & Power had 157.9 Full-Time Equivalent (FTE) employees as of December 31, 2015.

These employees were engaged in administration, system planning, engineering design, construction, maintenance, and system operations.



Saskatoon Light & Power has an extensive operating budget to maintain and operate the existing distribution system as well as a significant capital budget to complete major upgrades and installations. The utility's staff, therefore, work on both operating and capital projects throughout the year. Staffing levels have remained relatively constant over the past five years despite increasing workload.

5.2 Representative Workforce

Saskatoon Light & Power believes that its workforce should be representative of the public it serves.

The following chart shows that while the utility has a higher percentage of staff with aboriginal ancestry than employed by the City as a whole, it is still significantly below the Saskatchewan Human Rights Commission's (SHRC) goals set in 2014.

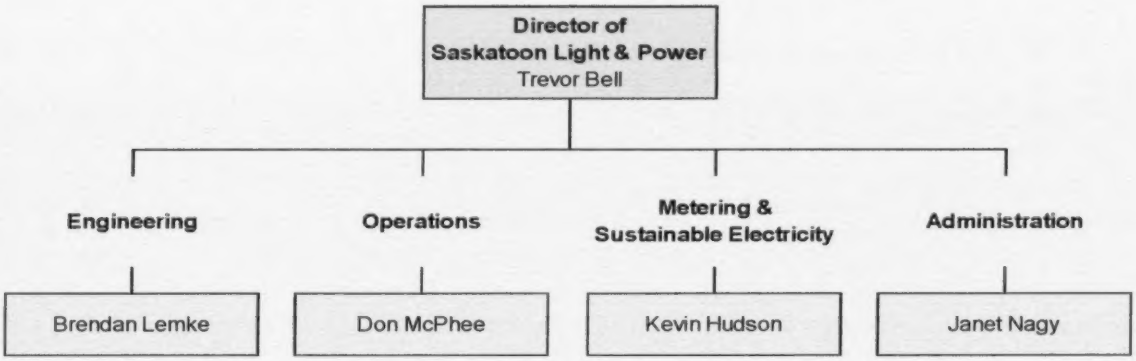
The other equity groups (visible minorities, people with disabilities, and females) are also underrepresented within the utility. This varies significantly within the different sections of the utility though, with some sections exceeding the SHRC's goals for visible minorities and females.

Percentage of Employees Self-Declared as an Equity Group Member
December, 2015

Equity Group	Saskatoon Light & Power	City of Saskatoon	SHRC Goals
Self-Declared as Aboriginal Ancestry	8.6%	7.2%	14.0%
Self-Declared as Visible Minority	9.3%	10.3%	11.0%
Self-Declared as Person with Disability	2.1%	3.9%	12.4%
Self-Declared as Female	9.3%	38.0%	46.0%

5.3 Organizational Structure

The organizational chart provides a high level overview of how Saskatoon Light & Power is organized and key positions in 2015.



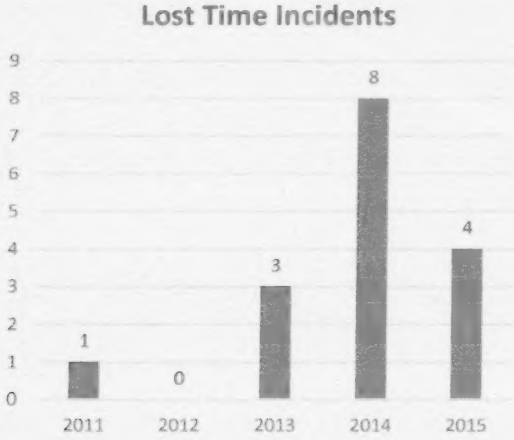
Accounting services for the utility are provided by the Business Administration division of the Transportation & Utilities Department. The Corporate Revenue division of the Asset & Financial Management Department provides utility meter reading, billing and collection services common to the electrical, water and sewer utilities.

5.4 Employee Safety

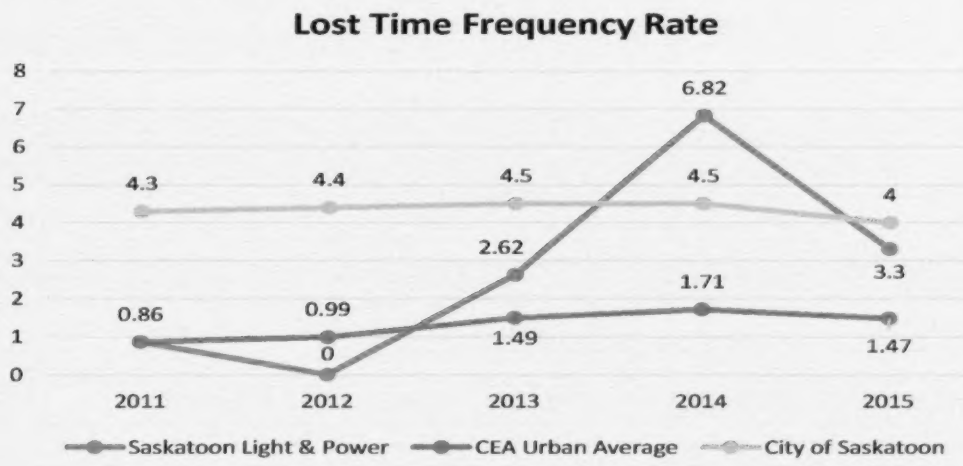
Employee safety is paramount at Saskatoon Light & Power.

The utility has a mature Safety Performance Management System and participates in benchmarking studies with the Canadian Electrical Association (CEA) in a group of similar sized utilities (Urban Average).

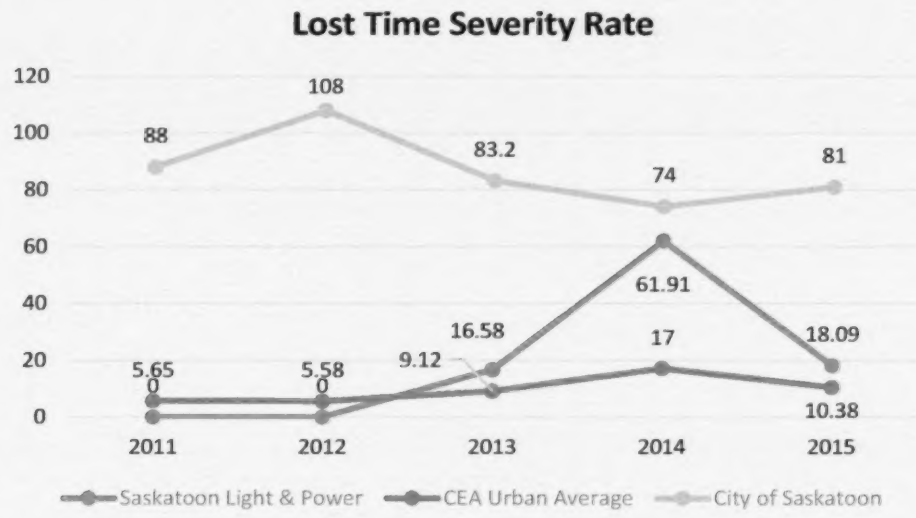
The following two graphs show the number of lost time injuries that occurred at Saskatoon Light & Power over the past five years and the number of days away from work. In 2015, there were four incidents that resulted in a total of 21.96 lost time days.



Lost time frequency is tracked against the CEA Urban Average and against the City's average. With the exception of 2014, Saskatoon Light & Power has generally been able to perform with lost time frequency statistics close to the CEA Urban Average.



Saskatoon Light & Power has performed better in terms of lost time severity, again with the exception of 2014. It has also performed significantly better than the City's average.



6.0 OUR WORK

6.1 Operating Highlights

Comprehensive Testing
One of the major emphases for Saskatoon Light & Power in 2015 was performing tests of key infrastructure equipment.

Comprehensive testing was conducted on all high voltage substation transformers. These tests will be repeated again in 2016 and 2017. This diagnostic test determined which transformers were starting to show signs of aging and may need additional maintenance. Saskatoon Light & Power has 20 of these transformers and each is worth approximately $1 million; therefore, regular monitoring of this equipment is critical.

Testing was also undertaken on 119 of the relays within the substations and 146 oil samples were taken from the transformers and analyzed.

Tree Trimming
Each year, overgrown trees come in contact with power lines causing service interruptions. Saskatoon Light & Power, therefore, has a tree trimming program aimed at cutting back tree branches to remove this hazard.

Underground Locates
It was a very busy year for underground locates. In the previous three years (2012 to 2014), there were an average of 5,535 locate requests. In 2015, this number increased more than four times to 24,651 locate requests. Many of these requests could be cleared over the phone with the customer, but the number of on-site field locates increased from the previous three year average of 2,548 locates up to 5,833.

Street Light Pole Inspection
A street light pole inspection program was launched in 2015 to prioritize the replacement of poles. A total of 1,429 poles were inspected in high priority locations including the downtown area and along major roadways. Crews replaced 76 poles in these areas.

6.2 Capital Projects

Saskatoon Light & Power provided funding to 35 capital projects in 2015.

The adjacent chart provides a summary of the funding by infrastructure category. This information does not include any carry-over funding from previous years, but does include customer contributions.

2015 Capital Budget

Category	2015 New Funding
Substations	$2,175,000
Communication & Control	$410,000
Transmission	$900,000
Distribution	$7,225,000
Network	$1,000,000
Alternative Energy	$200,000
Metering	$1,400,000
Lighting	$4,178,000
General	$1,750,000
Total	**$19,238,000**

Total capital funding in 2015 was $19,238,000.

6.2.1 Smart Meters & Automated Metering Infrastructure

Saskatoon Light & Power had two closely related, but distinctly separate, projects underway relating to its revenue meters.

Meters need to be tested on a regular basis and replaced periodically following Measurement Canada standards. The Meter Shop at Saskatoon Light & Power has been accredited by Measurement Canada since October 18, 2002.

Beginning in 2008, a change was made to begin using electronic meters instead of the electro-mechanical meters that had previously been used. Switching to the new meters was the first step toward implementing an Automated Metering Infrastructure (AMI) initiative. However, even without AMI, the new meters began providing benefits immediately. Smart meters provide greater accuracy and can be connected and disconnected remotely when needed. The information captured by the smart meters can also be used for other engineering purposes to detect power irregularities and help optimize the distribution system. By the end of 2015, just over half of the 60,000 meters had been replaced with smart meters. The project has recently been accelerated and will now be completed by the end of 2017. Funding in 2015 totalled $1.2 million.

A separate project was created to implement the AMI system, with new funding in 2015 totalling $200,000. This system provides the communication infrastructure to receive the information from the meters, send it on a secure network to City Hall, and then be processed for use in the billing system. Much of the work for the AMI project was completed in 2015 and is expected to be used for billing purposes in mid-2016. A key benefit of the AMI system for customers will be the elimination of monthly billing estimates.

This project was a collaborative effort between Saskatoon Light & Power, Saskatoon Water and Corporate Revenue to implement a single system for both electricity and water meters.

6.2.2 Customer Connections (New and Upgrades)

One of the largest regularly occurring capital projects is for upgrades and extensions of the electrical distribution system due to customer demand for new electrical service or electrical load growth.

More than 275 new work orders were raised for service connections and 50 commercial building approvals were given. A total of $4.55 million was spent in 2015 and $1.55 million was collected from customers for their portion of the work.

6.2.3 Street Lighting

Saskatoon Light & Power currently provides street lighting for 79% of the city and provides lighting in all new development areas.

In 2015, $3.238 million was budgeted for the installation of new street lights. The vast majority of this funding comes from land developers, with a smaller portion coming from other civic transportation projects. Saskatoon Light & Power invests $300 per light, matching the long-standing program offered by SaskPower.

The budget included $90,000 to respond to isolated areas that needed street lighting improvements. An additional $850,000 was budgeted to repair street lights that have either been damaged in car accidents or were old and needed to be replaced. Saskatoon Light & Power recovers costs from insurance companies whenever possible.

6.2.4 Feeder Upgrades & Replacement

Each year, Saskatoon Light & Power targets key distribution feeders for upgrades or replacement. In some cases, these upgrades are the result of increased demand on the system in that local area, and the lines need to be upgraded to provide more capacity. In other locations, the condition of the distribution system may have led to problems and the infrastructure needs to be replaced.

In 2015, $825,000 was budgeted to undertake this type of renewal.

6.2.5 New North Supply Point

Currently, Saskatoon Light & Power receives all of its bulk power from SaskPower at the Queen Elizabeth Switching Station near the Saskatoon Landfill. In 2015, a new

capital project was created to begin making plans for a new supply point coming from the north. SaskPower had recently installed a new transmission system which ties to different generating stations and provides an independent source of power from the Queen Elizabeth station. Saskatoon Light & Power provided $800,000 to undertake the first stages of functional design. Construction of this new line will be subject to City Council approval in the future.

6.3 Continuous Improvement Initiatives

Street Light Outage Reporting System
In cooperation with SaskPower, Saskatoon Light & Power implemented a Street Light Outage Reporting system in 2015. Hosted on both utilities' websites, residents of Saskatoon can now report a street light outage online. Depending on which utility maintains that light, the proper crews will be notified.

For residents phoning into Saskatoon Light & Power to report one of SaskPower's street lights will no longer be redirected. Staff enter the information into the system so the resident does not need to make a second call to SaskPower.

Sask 1st Call
Saskatoon Light & Power recently joined the Sask 1st Call system. Contractors and residents can now call or click Sask 1st Call and submit their request for locates. The information is then provided electronically to all participating utilities.

There are many benefits to this system. People no longer need to call Saskatoon Light & Power separately from other utilities. This has reduced the chance of people inadvertently overlooking the fact they are working in Saskatoon Light & Power's franchise area and not requesting the required locates. By reducing the number of underground lines that are hit by contractors, worker safety is improved and the integrity of the electrical utility is protected.

Since implementing the system, the number of construction projects requesting locates has increased significantly.

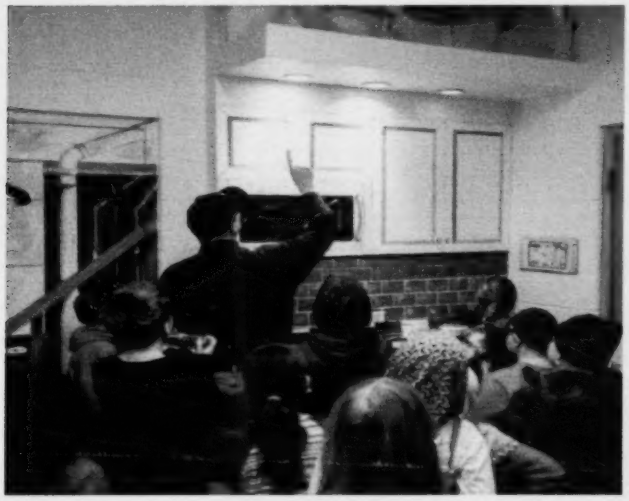
Copper Theft Mitigation
Copper theft continues to be a costly imposition on the Saskatoon Light & Power system. While the value of the stolen copper is small, the labour required to make the repairs is typically more than 100 times the material cost. It also represents a potentially

serious safety concern for crews and the public when the grounding system is compromised. High hazard areas are regularly inspected for theft or damage and all repairs are now completed with a material that performs like copper, but has no salvage value and is more difficult to cut. Warning signs have been placed at substations to educate potential thieves of the difference. For other locations, protective steel guards are installed to reduce the opportunity for theft.

Customer Information Guide
In 2015, a major rewrite of our Customer Service Guide, now called the Customer Information Guide, was completed and expanded to provide customers with additional information about the utility and the services provided. This included a short-form guide for residential electrical services that is now provided with all building permit applications in the franchise area.

6.4 Community Awareness and Engagement

School Tour Program
Saskatoon Light & Power hosted 31 school tours in 2015 (848 students). The school tour program is designed to complement the grade 6 and grade 9 curriculums.



Students learn what electricity is and how to be safe around it. They learn about the environment, social and economic impacts of electricity use in Saskatchewan, and ways to reduce those impacts. They also learn about career opportunities in the electricity industry.

A new Smart Metering Display was added as part of the school tours. The display features a three-dimensional (3D) interactive mural created by young artists through Saskatoon Community Youth Arts Programming (SCYAP). This program offers visual and graphic arts training to youth at risk in the Saskatoon area at no cost. The new display was featured in the Canadian Electricity Association Annual Sustainable Electricity Report.

Pandit Deendayal Petroleum University Engineering Tour
Students from Pandit Deendayal Petroleum University in Ahmadabad, India, toured the Landfill Gas Power Generation Facility. These international students were in Saskatchewan to gain experience and knowledge of Canadian educational, cultural, and social practices, and to develop inter-cultural skills.

Student Action for a Sustainable Future
Student Action for a Sustainable Future (SASF) is an action and inquiry project for grades 5 through 8 students in Saskatoon. Led by the City, partners include the Saskatchewan Environmental Society, Greater Saskatoon Catholic Schools, Saskatoon Public Schools, Saskatoon Light & Power, and the Sustainability Education Research Institute at the University of Saskatchewan. Supported by the partners, students from several schools develop, implement, and showcase inquiry and actions, which focus on six areas: waste, water, energy, food, transportation, and biodiversity that reduce greenhouse gas emissions in Saskatoon and around Saskatchewan.

7.0 OUR ENVIRONMENT

7.1 Stewardship

As a division of the City and a member of the Canadian Electricity Association, Saskatoon Light & Power is committed to environmental stewardship. The following subsections provide information about specific actions the utility has taken in 2015.

Environmental Management System
Saskatoon Light & Power began the implementation of an Environmental Management System (EMS) in 2015.

The utility will be the first division in the City to have an EMS consistent with the International ISO 14001 standard.

An EMS is a structured framework to manage an organization's environmental performance and minimize its environmental impact. It ensures to the public and other stakeholders that an organization is doing everything in its power to effectively manage their environmental responsibilities. This system will be in place by late 2016.

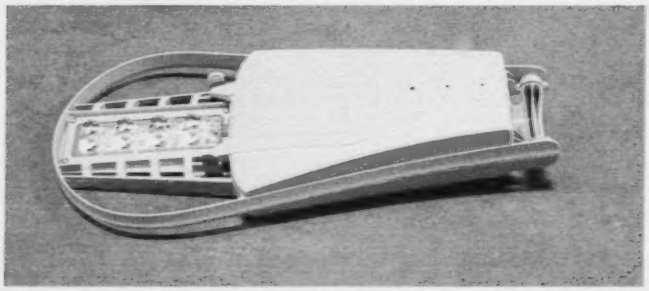
Removal of Transformers Containing PCBs
Manufacturers no longer use PCBs in transformers, but when Saskatoon Light & Power's distribution system was developed in the 20th century, the use of PCBs was common.

The utility, along with other utilities across the nation, has a program to remove and decommission all transformers containing PCBs above the limit established by the federal government. Saskatoon Light & Power currently has 398 transformers containing more than 5 ppm of PCBs out of a total of 4,556 transformers owned by the utility. This work is being scheduled to comply with the required deadline of 2024.

LED Street Lighting

Saskatoon Light & Power has been a leader in the implementation of LED lighting in Saskatchewan. After a successful pilot project in the Evergreen neighbourhood, City Council adopted a recommendation from the utility in January 2015 to implement energy efficient LED lighting for all new developments.

By the end of 2015, the utility had installed 1,334 LED lights (5.4% of the utility's total number of lights). These lights reduced total energy consumption by an estimated 434,581 kilowatt-hours annually. This decreased greenhouse gas emissions by 191.2 tonnes of CO_2e, which is the equivalent of removing 38 cars from our roads annually. These benefits will continue to grow as more LED lights are installed in the future.



7.2 Clean Energy Projects

Saskatoon Light & Power has set a target to develop clean energy projects to offset 10% of the energy it distributes to customers. Achieving this ambitious target will take a number of years, but the utility has already constructed one generating station with others currently being planned.

Landfill Gas Power Station

The first full year of operation of the Landfill Gas Power Station was in 2015. It generated 10,833 MWh of electricity and reduced emissions in Saskatoon by 52,000 tonnes of CO_2e by combusting 200 million standard cubic feet of landfill gas. This is equivalent to removing 9,000 cars from the road annually, while powering roughly 1,300 homes.

The Landfill Gas Power Station received recognition across Canada in 2015, being featured in Sustainable Business Magazine, highlighted in the Canadian Electricity Association Sustainable Electricity Annual Report, and mentioned in presentations at the Solid Waste Association of North America Northern Lights Conference.

Customer Solar Program
Saskatoon Light & Power offers a Customer Solar Program allowing its customers to generate a portion of their own electricity using solar panels and offsetting some of their power costs every year. Through the program, Saskatoon Light & Power customers can operate in parallel with the utility's distribution system, selling power to Saskatoon Light & Power when they are generating more than they need, and buying power from Saskatoon Light & Power at nighttime or when they are using more electricity than they can generate on their own. In 2015, the number of customers taking advantage of this program increased from 31 to 46, with an average system size of 4.8 kW for residential systems and 12.6 kW for commercial systems.

Combined, all of the solar panels interconnected with Saskatoon Light & Power's grid produce about 300 MWh each year (about 0.03% of the annual electricity sold to customers). While this accounts for only a small fraction of the electricity used in Saskatoon, the number of connected customers is doubling in size every two years.

Solar PV Demonstration Project
Saskatoon Light & Power began discussions in 2015 with two local partners, SES Solar Cooperative Ltd. and Saskatchewan Polytechnic, to develop a solar photovoltaic (PV) power demonstration site that will be located at the Landfill Gas Power Station.

This solar PV demonstration project will provide important information on the performance of different solar array arrangements, as well as capital cost versus production analysis. This project will provide the partners with important information and experience required to understand the benefits and disadvantages of both passive and active collection of solar for the purpose of generating electricity. The project will be operational by the summer of 2016.

Combined Heat & Power
In 2015, a Saskatchewan Combined Heat & Power (CHP) Working Group was created between SaskEnergy, SaskPower, Saskatoon Light & Power, and industrial partners to identify opportunities to develop the CHP market in Saskatchewan. This initiative included the goal of providing recommendations for policies and program ideas which could aid CHP market development.

Saskatoon Light & Power is actively participating in three of the group's committees: reviewing interconnection processes; reviewing demand charges, standby charges, and treatment of CHP; and preparing a prefeasibility calculator for CHP.

Hydropower Project at the Weir
Work has also progressed on the development of a hydropower project located at the Saskatoon Weir. The utility met with several groups interested in partnering on the project and confirmed with City Council that it wishes the utility to explore this opportunity further.

If constructed, and depending on the various options being explored, this generating station could provide clean energy for up to 3,500 homes and reduce greenhouse gas emissions by 28,000 tonnes of CO_2e.

8.0 OUR CHALLENGES

While the overall performance of Saskatoon Light & Power has remained very strong, there are a number of challenges facing the utility.

Age and Condition of Existing Infrastructure
A significant portion of the utility's assets were installed during periods of significant land development and urban growth in the 1950's to 1980's. These assets are now 30 to 60 years old and are needing to be replaced.

Electrical utilities across Canada have identified that funding for renewal projects has not kept pace with the requirements to maintain the system. The result is that the average age of infrastructure is increasing. Asset sustainability and reliability will be at risk if not properly managed.

To address this concern, the utility has been working to implement asset management principles into its decision making processes. Plans are being made to have an asset management system in place for 2017.

Funding for Capital Spending
A Capital Development Planning study was completed in 2012 to review the condition of the electrical distribution system against industry standards. A Bulk Power System Planning study was also completed in 2014 to review the transmission system's ability to meet growth requirements in the future as the city's population density increases in existing neighbourhoods.

Work will continue in 2016 to develop an appropriate funding strategy to address these infrastructure renewal and growth issues.

Distributed Generation and Rates
Installation of distributed generation systems, such as solar panels on the roofs of homes and businesses, can provide customers with a clean source of energy. However, the existing utility rate structure does not take this growing trend into account and does not adequately address the costs incurred by the utility to provide a backup or supplemental power distribution system for these systems.

Distributed generation systems typically do not meet the full needs of the customer, so customers still rely on the utility for a portion of their power and for a backup supply when their system fails. The reduced amounts collected from these customers do not provide sufficient funding to maintain the extensive distribution system that is necessary to serve all customers.

Saskatoon Light & Power will be discussing this issue with SaskPower in the future to explore opportunities to continue to facilitate distributed generation while charging an appropriate "standby" rate that adequately funds the distribution system.

9.0 CONCLUSION

The overall performance of Saskatoon Light & Power remained strong in 2015. The utility is debt-free and provides a significant return on investment to the City. Reliability statistics show that the utility is performing better than the CEA Urban Average and is able to restore power faster than average when the power does go out.

Saskatoon Light & Power is fortunate to have a dedicated and skilled group of employees. The success of the utility is a direct result of their efforts over the past year. The guidance and support of the Transportation & Utilities Department General Manager, City Manager and City Council are also greatly appreciated.

10.0 APPENDIX

10.1 History of Saskatoon Light & Power

The municipal electric utility was started in 1906, with a small generating plant of 225 kilowatts located on the riverbank at Avenue H and 11th Street. Initially, service was provided at night time only for lighting purposes, but by 1908, 24-hour service was available.

By 1911, the extremely rapid growth in demand for electricity forced the City to construct a new coal-fired thermal generating plant on Avenue A south of 19th Street (A.L. Cole generating plant). Plant expansions brought the generating capacity to 10,000 kilowatts by 1919.

In 1928, the City sold its power plant to the Saskatchewan Power Commission, which began selling electricity in bulk to the City for distribution to its customers. The plant was the single source of supply for Saskatoon at the time.

The Queen Elizabeth Power Station was constructed by SaskPower in 1959 and is still generating power at its location just south of the Saskatoon Landfill. In the early 1980's, the A.L. Cole plant was then retired.

In the early 1960's, SaskPower continued its expansion and took over many of the municipal utilities in the province, including the City of Regina's utility in 1965. At that time, the City of Saskatoon decided not to sell its electric utility and opted to continue operating to provide electrical services to businesses and residents.

The franchise boundary for the utility was set by provincial legislation based on the 1958 municipal boundaries. The franchise area has not changed significantly with the expansion of the city, and SaskPower serves the portion of Saskatoon outside of this area.

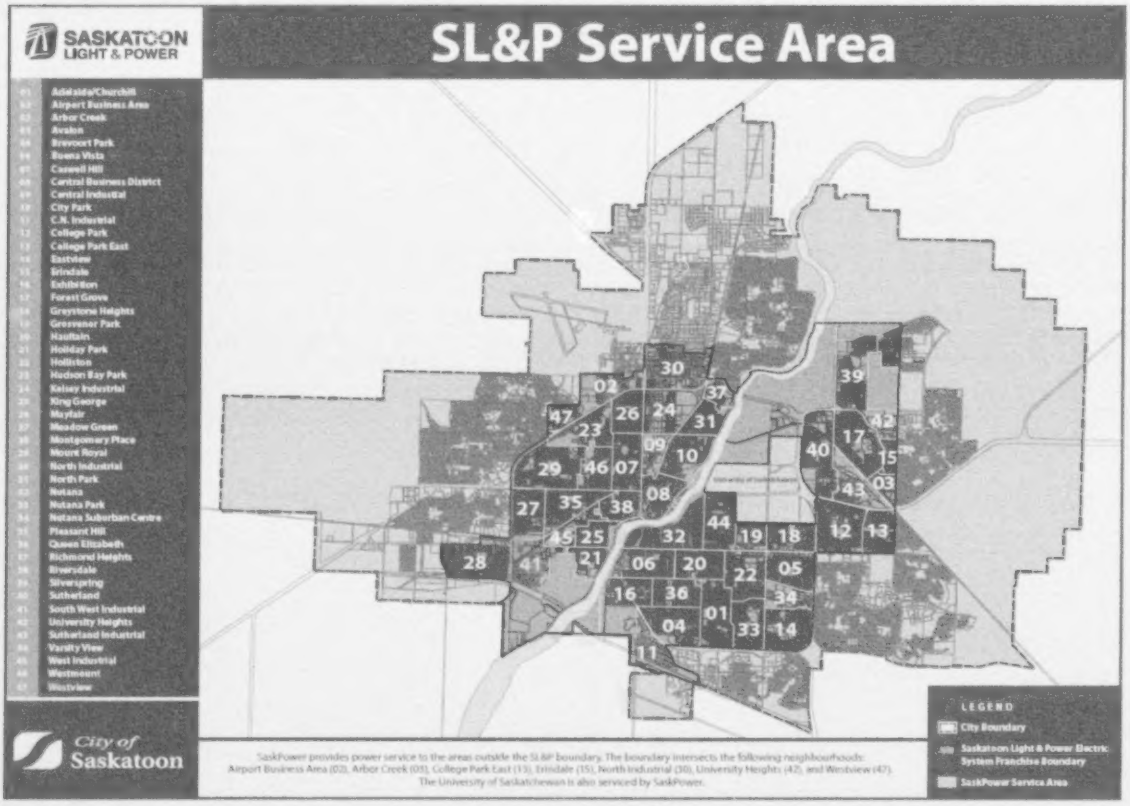
In December 2004, City Council approved Saskatoon Light & Power as the new name for the City's electric utility.

Saskatoon Light & Power is the largest municipal utility in the province and is SaskPower's largest single customer.

In March 2014, Saskatoon Light & Power once again began generating electricity by commissioning the Landfill Gas Generating Station. The 1.63 Megawatt facility produces enough electricity each year to power 1,300 homes. Annual greenhouse gas

emissions from the landfill were reduced by over 52,000 tonnes (the equivalent of removing 9,000 vehicles from Saskatoon's roadways.

10.2 Franchise Boundary



10.3 Lighting Boundary